UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/689,481	10/12/2000	Michael J. Polcyn	47524-P102US-09901295	7741

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EXAMINER
ELAHEE, MD S

ART UNIT	PAPER NUMBER
2645	

DATE MAILED: 12/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/689,481	POLCYN, MICHAEL J.
	Examiner	Art Unit
	Md S Elahee	2645

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>03</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-31,33, 35-59 and 80-85* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☒ Claim(s) *60-67 and 72-79* is/are allowed.

6) ☒ Claim(s) *1-31, 33, 35-59 and 80-85* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Reopening of Prosecution-New ground of Rejection After Appeal

1.   In view of the appeal Brief filed on 08/24/04, Examiner agreed with the applicant that the

Crockett et al. reference used in the Final Rejection fails to meet the claimed limitation

"quantifying at least one attribute" recited in claims 1, 19, 36 and 60. Examiner believes that the

claimed limitation should be interpreted as "measuring an attribute" and the Crockett reference

fails to measure (i.e., non binary Quantification) the fluency of an agent's language attribute.

Therefore, PROSECUTION IS HEREBY REOPENED. Note, since prosecution of current

application is reopened, the unentered After Final amendment filed on 06/16/2004 is entered.

After performing an updated search, a newly discovered prior art Agusta reads on certain claims.

The rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following

two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37

CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a

supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or

other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
> subject matter which the applicant regards as his invention.

3.   Claim 7 recites the limitation "quantifying "N" number of attributes" in page 2, line 3 of

the claim. There is insufficient antecedent basis for this limitation in the claim. It is not clear

what is "N". 7, 25 and 48

Regarding claims 25 and 48 are rejected for the same reasons as discussed above with

respect to claim 7.

Claim 8 recites the limitation "plotting said quantified "N" number of attributes" in page

2, line 2 of the claim. There is insufficient antecedent basis for this limitation in the claim

Regarding claims 10, 26, 49 and 60 are rejected for the same reasons as discussed above

with respect to claim 8.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed
> in the United States before the invention by the applicant for patent or (2) a patent granted on an application for
> patent by another filed in the United States before the invention by the applicant for patent, except that an
> international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this
> subsection of an application filed in the United States only if the international application designated the United
> States and was published under Article 21(2) of such treaty in the English language.

5.   Claims 1-7, 11-15, 17, 19-25, 28-32, 34, 36-40, 42-48, 51-56, 58 and 80-85 are rejected

under 35 U.S.C. 102(e) as being anticipated by Agusta (U.S. Patent No. 6,584,192).

Regarding claim 1, Agusta teaches providing a finite number of agents [i.e., resources]

for servicing tasks [i.e., requests] (abstract; col.1, lines 48-52, col.2, lines 54-67, col.3, lines 1-

22).

Agusta further teaches quantifying at least one skill [i.e., attribute] of the agents beyond

mere binary quantification (col.4, lines 25-36 states fig.4 shows the system has a chart to show

proficiency level of multiple agents for a particular skill, the proficiency level of agent for a skill reads on the claimed "quantifying at least one attribute).

Agusta further teaches receiving at least one request for at least one of the agents (fig.6, item 600; col.1, lines 48-52).

Agusta further teaches quantifying at least one skill desired by the at least one request (fig.6, item 602; col.5, lines 24-46).

Agusta further teaches based at least in part on the quantifying steps, determining at least one suitable agent for servicing the at least one request (fig.6, item 618; fig.4, lines 56-58, col.5, lines 24-46).

Regarding claims 2, 20 and 44, Agusta teaches that the resources include agents within a telephony call center (col.2, lines 54-67).

Regarding claims 3, 21 and 45, Agusta teaches that the at least one request includes a request from a caller to a telephony center (col.2, lines 54-67).

Regarding claims 4, 22 and 46, Agusta teaches that the agents include resources inherently within a computer system (col.2, lines 54-67).

Regarding claims 5, 23 and 47, Agusta teaches that the agents include resources selected from the group consisting of skills (col.5, lines 24-46).

Regarding claims 6 and 24, Agusta teaches quantifying two or more skills of the agents (col.4, lines 25-36, col.5, lines 24-46).

Regarding claims 7, 25 and 48, Agusta teaches quantifying "N" number of skills of the agents (col.4, lines 25-36, col.5, lines 24-46).

Regarding claims 11, 29 and 52, Agusta teaches determining the at least one suitable agent from agents then available to immediately service the at least one request (col.4, lines 1-24, col.5, lines 24-46).

Regarding claims 12, 30 and 53, Agusta teaches determining the at least one suitable agent from all of the agents (col.4, lines 1-24, col.5, lines 24-46).

Regarding claims 13, 31 and 54, Agusta teaches that the at least one attribute includes at least one skill possessed by the agents (col.4, lines 1-24, col.5, lines 24-46).

Regarding claims 14 and 55, Agusta teaches that the at least one attribute includes at least one functional capability possessed by the agents (col.4, lines 1-24, col.5, lines 24-46).

Regarding claims 15, 17, 32, 34, 56 and 58, Agusta teaches grading the at least one attribute of each of the resources along a scale (col.2, lines 54-67, col.3, lines 1-22, col.4, lines 1-24, col.5, lines 24-46).

Regarding claim 19 is rejected for the same reasons as discussed above with respect to claims 1 and 15. Furthermore, Agusta teaches quantifying the at least one functional skill desired by the at least one request wherein the quantifying the at least one functional skill desired by the at least one request including grading the at least one attribute of each of the resources along a scale having more than binary grades (fig.6, item 602; col.4, lines 25-36, col.5, lines 24-46).

Regarding claim 36 is rejected for the same reasons as discussed above with respect to claim 19. Furthermore, Agusta teaches determining at least one suitable agent for servicing the at least one request based at least in part on the at least one quantified attribute of the agents and the at least one quantified attribute desired by the at least one request, wherein the means for determining computes a difference between the quantified at least one attribute of the agents

(i.e., resources) and the quantified at least one attribute desired by the at least one request to identify at least one of the agents that is suitable for servicing the at least one request (fig.6, items 602, 618; col.4, lines 25-36, 56-58, col.5, lines 24-46).

Regarding claim 37, Agusta teaches quantifying at least one skill of the agents includes inherently a computer processor executing computer software code (col.2, lines 54-67, col.3, lines 1-22, col.4, lines 25-36, col.5, lines 24-46).

Regarding claim 38, Agusta teaches quantifying at least one skill desired by the at least one request includes inherently a computer processor executing computer software code (col.2, lines 54-67, col.3, lines 1-22, 35-67, col.4, lines 1-24, col.4, lines 25-36, col.5, lines 24-46).

Regarding claim 39, Agusta teaches that the determining means includes inherently a computer processor executing computer software code (col.2, lines 54-67, col.3, lines 1-22, 35-67, col.4, lines 1-24, col.5, lines 24-46).

Regarding claim 40, Agusta teaches that the receiving means includes inherently a connection to a network (col.2, lines 54-67, col.4, lines 1-24).

Regarding claim 42, Agusta teaches that the receiving means includes inherently a switching system (col.4, lines 1-24).

Regarding claim 43, Agusta teaches that the switching system includes a task center (i.e., ACD/PBX) (col.4, lines 1-24).

Regarding claim 80, Agusta teaches quantifying at least one attribute desired by the at least one request comprises at least one inherently selected from the group consisting of: demographics information, a profile for a requestor, and interactive voice response (IVR) interaction with the requestor (col.2, lines 54-67, col.4, lines 25-36).

Regarding claims 81 and 84, Agusta teaches receiving a target value of the at least one attribute desired by the at least one request and inherently a close_match modifier that indicates the closeness of the quantified at least one attribute of the resources to the target value that is suitable for servicing the at least one request (col.3, lines 35-67, col.4, lines 25-36, col.5, lines 24-46).

Regarding claims 82 and 83, Agusta teaches that quantifying at least one attribute desired by the at least one request comprises using information in a profile for a requestor of the at least one of the resources for performing the quantifying for a request from the requestor (col.2, lines 54-67, col.4, lines 25-36, col.5, lines 24-46).

Regarding claim 85, Agusta teaches receiving inherently a close_match modifier that indicates how close the quantified at least one functional attribute of the resources has to be to the quantified at least one functional attribute desired by the at least one request in order to be suitable for servicing the at least one request (col.2, lines 54-67, col.4, lines 25-36, col.5, lines 24-46).

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 16, 18, 33, 35, 57 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Agusta (U.S. Patent No. 6,584,192) and in view of Raman et al. (U.S. Patent No. 5,572,625).

Regarding claims 16, 18, 33, 35, 57 and 59, Agusta fails to teach "said scale is of 0 to 100". Raman teaches that the scale is of 0 to 100 (fig.5a, fig.5b; col.8, lines 57-67, col.9, lines 1-41). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Agusta to allow scale being of 0 to 100 as taught by Raman. The motivation for the modification is to have doing so in order to provide the quantification of the capability of the attributes.

8.   Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Agusta (U.S. Patent No. 6,584,192) and in view of McPartlan et al. (U.S. Patent No. 6,584,191).

Regarding claim 41, Agusta fails to teach "network is selected from the group consisting of public switched telephony network (PSTN), local area network (LAN), wide area network (WAN), the Internet, an Intranet, or any combination thereof". McPartlan teaches that the network is selected from the group consisting of public switched telephony network (PSTN), local area network (LAN), wide area network (WAN), the Internet, an Intranet, or any combination thereof (abstract; fig.2, fig.3; col.6, lines 63-67, col.7, lines 1-20, col.8, lines 23-34). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Agusta to allow the network being selected from the group consisting of public switched telephony network (PSTN), local area network (LAN), wide area network (WAN), the Internet, an Intranet, or any combination thereof as taught by McPartlan. The motivation for the modification is to have doing so in order to provide the network suitable for the system.

Allowable Subject Matter

8.   Claims 8-10, 26, 27, 49, 50, 60-67 and 72-79 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

9.   The following is an examiner's statement of reasons for allowance:

Regarding claim 60, the Examiner's newly discovered reference Agusta after having all the limitations of the claim fails to teach the code executable to quantify at least one attribute of the resources further including code executable to quantify N number of attributes of the resources and code executable to plot the quantified N number of attributes within an N-dimensional space wherein the code executable to quantify at least one attribute desired by the at least one request further includes code executable to plot the quantified at least one attribute desired by the at least one request within the N-dimensional space wherein the code executable to determine at least one suitable resource includes code executable to calculate the distance between the quantified N number of attributes of the resources. Claims 61-67 and 72-79 are allowed since they are dependent on claim 60.

Conclusion

10.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gabriel et al. (U.S. Patent No. 6,560,330) teach Rules-based queuing of calls to call-handling resources, Brooks et al. (U.S. Patent 5,825,869) teach Call management method and system for skill-based routing and Villena et al. (U.S. Patent 6,832,203) teach Skills based contact routing.

11.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Md S Elahee whose telephone number is (703) 305-4822. The examiner can normally be reached on Mon to Fri from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on (703) 305-4895. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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